

**REMARKS**

Reconsideration and allowance in view of the foregoing amendments and the following remarks is respectfully requested.

The claims of the referenced application have been amended in accordance with U.S. Patent Practice. Claims 1-11 are pending in the application. Claims 1-7 have been amended to improve claim language. New Claims 8-11 were added. The new claims find support in the original specification, e.g., page 4, lines 6-19, page 5, lines 12-28, and page 6, lines 4-27.

Claims 1-7 have been rejected under 35 USC § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In response, applicant has amended claims 1-7 to overcome the rejection. Accordingly, the rejection is believed to be moot.

Further, the Examiner stated that claim 5 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112, second paragraph set forth in the Office Action, and to include all of the limitations of the base claim and any intervening claims. In response, applicant has amended claim 5 to assume independent from. Accordingly, claim 5, now stands in *prima facie* condition for allowance.

Claims 1-3 are rejected under 35 U.S.C. §103(a) as being unpatentable over Cucchiara et al. (NPL document titled: Detecting Moving Objects, Ghosts and Shadows in Video Streams) hereinafter as Cucchiara(1) in view of Cucchiara et al. (NPL document titled: Improved Shadow Suppressing in Moving Object Detection with HSV Color Information) hereinafter as Cucchiara(2). Applicant respectfully traverses this rejection.

Regarding claim 1, Cucchiara(2) does not disclose the process of forming an intermediate color image based on only the hue (H) and saturation (S) component of the original color image, rather Cucchiara(2) discloses the process of approximating the luminance of an object based on the intensity value (V) of the Hue-Saturation-Value (HSV) color space (see Cucchiara page 336, section III, paragraphs 3-5). To further

emphasize the difference between Cucchiara(2) and the present invention, claim 1 has been amended to point out the features stated above. For at least this reason, claim 1 is deemed to be patentable and the rejection should be withdrawn.

In addition, claim 1 has been further amended to show the conversion from the intermediate image to a monochromatic 1-D image is only represented by one parameter, D1. D1 is a function of components X and Y from the intermediate image, which distinguishes a pixel of an object from the other pixel of the same object. Further, D1 is determined from a coordination transformation, such as the Karhunen-Loeve transformation, in which new coordinates are expressed as marks on axis that are defined to optimize the distribution of information along the axis. The combination of Cucchiara(1) and Cucchiara(2) fails to disclose or suggest the advantages of D1. For at least this reason, claim 1 is deemed to be patentable and the rejection should be withdrawn.

Claims 2-3 depend, either directly or indirectly, from claim 1, include further important limitations, and are patentable over Cucchiara(1) and Cucchiara(2) for at least the reason above with respect to claim 1, accordingly, the rejection is respectfully traversed.

Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Cucchiara(1) in view of Cucchiara(2) further in view of Carevic et al. (NPL document titled: Region-Based Coding of Color Images Using Karhunen-Loeve Transform). Applicant respectfully traverses this rejection.

Claim 4 depends, either directly or indirectly, from claim 1, include further important limitations, and are patentable over Cucchiara(1), Cucchiara(2), and Carevic for at least the reason above with respect to claim 1, accordingly, the rejection is respectfully traversed.

Claims 6-7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Cucchiara(1) in view of Cucchiara(2) further in view of Scanlan et al. (NPL document titled: A Shadow Detection and Removal Algorithm for 2-D Images). Applicant

respectfully traverses this rejection.

Claims 6-7 depend, either directly or indirectly, from claims 1 and 5, include further important limitations, and are patentable over Cuccuiara(1), Cuccuiara(2), and Scanlan for at least the reason above with respect to claims 1 and 5, accordingly, the rejection is respectfully traversed.

All objections and rejections having been addressed, it is respectfully submitted that the present application should be in condition for allowance and a Notice to that effect is earnestly solicited.

Early issuance of a Notice of Allowance is courteously solicited.

The Examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

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